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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification<sup>6</sup> :</b> <b>G01N 33/50, 33/566, C12N 5/10, C07K 14/435, 14/705</b>		<b>A1</b>	<b>(11) International Publication Number:</b> <b>WO 99/06830</b>
<b>(21) International Application Number:</b> PCT/US98/15717		<b>(43) International Publication Date:</b> 11 February 1999 (11.02.99)	
<b>(22) International Filing Date:</b> 29 July 1998 (29.07.98)		<b>(81) Designated States:</b> AU, CA, JP, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).	
<b>(30) Priority Data:</b> 60/054,165 30 July 1997 (30.07.97) US 60/054,492 1 August 1997 (01.08.97) US		<b>Published</b> With international search report.	
<b>(71) Applicant (for all designated States except US):</b> THE REGENTS OF THE UNIVERSITY OF CALIFORNIA [US/US]; 12th floor, 1111 Franklin Street, Oakland, CA 94607 (US).			
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<b>(74) Agents:</b> PARENT, Annette, S. et al.; Townsend and Townsend and Crew LLP, Two Embarcadero Center, 8th floor, San Francisco, CA 94111-3834 (US).			
<b>(54) Title:</b> METHOD FOR MODULATING G-PROTEIN COUPLED RECEPTORS			
<b>(57) Abstract</b> <p>The present invention relates to methods of screening for modulators, of G-protein coupled receptor signal transduction activity, and methods for screening for mutant RDGC phosphatases associated with G-protein coupled receptor signal transduction disease.</p>			

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# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 2307E-8511PC	<b>FOR FURTHER ACTION</b>	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/US98/15717	International filing date ( <i>day/month/year</i> ) 29 JULY 1998	(Earliest) Priority Date ( <i>day/month/year</i> ) 30 JULY 1997
Applicant THE REGENTS OF THE UNIVERSITY OF CALIFORNIA		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☐ Certain claims were found unsearchable (See Box I).
2. ☐ Unity of invention is lacking (See Box II).
3. ☐ The international application contains disclosure of a nucleotide and/or amino acid sequence listing and the international search was carried out on the basis of the sequence listing

- ☐ filed with the international application.  
☐ furnished by the applicant separately from the international application,  

☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.

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4. With regard to the title,
 

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6. The figure of the drawings to be published with the abstract is:

- Figure No. \_\_\_\_\_
 

☐ as suggested by the applicant.  
☐ because the applicant failed to suggest a figure.  
☐ because this figure better characterizes the invention.

☒ None of the figures.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US98/15717

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : G01N 33/50, 33/566; C12N 5/10; C07K 14/435, 14/705

US CL : 435/7.2, 7.6, 21

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/7.2, 7.6, 21

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS, MEDLINE, EMBASE, CAPLUS, WPIDS  
search terms: rdg?, phosphatas?, phosph!phatase?, g protein coupled receptor, gpcr, c zuker, j vinos

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	BYK ET AL., Regulatory arrestin cycle secures the fidelity and maintenance of the fly photoreceptor cell. Proc. Natl. Acad. Sci. USA. March 1993, Vol. 90, pages 1907-1911, see especially Figures 2 and 5.	1, 3, 4, 6, 7, 10-14
Y	Database Genbank on STN. US National Library of Medicine (Bethesda, MD USA). GenBank Accession Number M17718. D. melanogaster opsin (Rh3) gene, complete cds. 15 March 1989, see entire document.	2, 5, 8, 9, 15-38
Y	STEELE ET AL. Drosophila retinal degeneration C (rdgC) encodes a novel serine/threonine protein phosphatase. Cell. 15 May 1992, Vol. 69, pages 669-675, especially Figure 4 and page 674.	5, 17, 28, 35
Y		1-38

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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Date of the actual completion of the international search

19 OCTOBER 1998

Date of mailing of the international search report

30 OCT 1998

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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US98/15717

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	ZUCKER C.S. The biology of vision of drosophila. Proc. Natl. Acad. Sci. USA. 23 January 1996, Vol. 93, No. 2, pages 571-576, see especially page 575 and Figure 1.	1-38
Y	STEELE ET AL. The drosophila rdgC protein phosphatase and protein phosphorylation/dephosphorylation events in vision. Adv. Protein. Phosphatases. 1993, Vol. 7, pages 515-527, see entire document.	1-38
Y, P	VINOS ET AL. A G protein-coupled receptor phosphatase required for rhodopsin function. Science. 01 August 1997, Vol. 277, pages 687-690, see entire document.	1-38
X	PITCHER ET AL. The G-protein-coupled receptor phosphatase: A protein phosphatase type 2A with a distinct subcellular distribution and substrate specificity. Proc. Natl. Acad. Sci. USA. August 1995, Vol. 92, pages 8343-8347, see entire document.	1, 3, 6, 10, 12, 13